RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:	10/508,343
Source:	PG110
Date Processed by STIC:	3/13/o 5

ENTERED



PCT

RAW SEQUENCE LISTING DATE: 03/13/2005 PATENT APPLICATION: US/10/508,343 TIME: 11:58:40

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3 <110> APPLICANT: Evotec NeuroSciences GmbH
     5 <120> TITLE OF INVENTION: DIAGNOSTIC AND THERAPEUTIC USE OF HUMAN MAGUIN PROTEINS
             AND NUCLEIC ACIDS FOR NEURODEGENERATIVE DISEASES
     8 <130> FILE REFERENCE: 020791ep ME/BM
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/508,343
C--> 11 <141> CURRENT FILING DATE: 2004-09-20
    13 <160> NUMBER OF SEQ ID NOS: 24
    15 <170> SOFTWARE: PatentIn Ver. 2.1
    17 <210> SEQ ID NO: 1
    18 <211> LENGTH: 1034
    19 <212> TYPE: PRT
    20 <213> ORGANISM: Homo sapiens
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                         5
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    26 Val Asp Trp Met Lys Gly Leu Asp Asp Cys Leu Gln Gln Tyr Ile Lys
                                         25
    29 Asn Phe Glu Arg Glu Lys Ile Ser Gly Asp Gln Leu Leu Arg Ile Thr
    32 His Gln Glu Leu Glu Asp Leu Gly Val Ser Arg Ile Gly His Gln Glu
    35 Leu Ile Leu Glu Ala Val Asp Leu Leu Cys Ala Leu Asn Tyr Gly Leu
                             70
    38 Glu Thr Glu Asn Leu Lys Thr Leu Ser His Lys Leu Asn Ala Ser Ala
                                             90
    41 Lys Asn Leu Gln Asn Phe Ile Thr Gly Arg Arg Arg Ser Gly His Tyr
                                        105
                   100
    44 Asp Gly Arg Thr Ser Arg Lys Leu Pro Asn Asp Phe Leu Thr Ser Val
                                    120
    47 Val Asp Leu Ile Gly Ala Ala Lys Ser Leu Leu Ala Trp Leu Asp Arg
                                135
    50 Ser Pro Phe Ala Ala Val Thr Asp Tyr Ser Val Thr Arg Asn Asn Val
                           150
                                                155
    53 Ile Gln Leu Cys Leu Glu Leu Thr Thr Ile Val Gln Gln Asp Cys Thr
                                            170
    56 Val Tyr Glu Thr Glu Asn Lys Ile Leu His Val Cys Lys Thr Leu Ser
                   180
                                        185
                                                            190
    59 Gly Val Cys Asp His Ile Ile Ser Leu Ser Ser Asp Pro Leu Val Ser
               195
                                    200
                                                        205
    62 Gln Ser Ala His Leu Glu Val Ile Gln Leu Ala Asn Ile Lys Pro Ser
                                215
    65 Glu Gly Leu Gly Met Tyr Ile Lys Ser Thr Tyr Asp Gly Leu His Val
    66 225
                           230
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235

Input Set : A:\US10508343-seq list.txt
Output Set: N:\CRF4\03132005\J508343.raw

68 Ile Thr Gly Thr Thr Glu Asn Ser Pro Ala Asp Arg Cys Lys Lys Ile 245 250 71 His Ala Gly Asp Glu Val Ile Gln Val Asn His Gln Thr Val Val Gly 265 74 Trp Gln Leu Lys Asn Leu Val Asn Ala Leu Arg Glu Asp Pro Ser Gly 280 77 Val Ile Leu Thr Leu Lys Lys Arg Pro Gln Ser Met Leu Thr Ser Ala 290 295 300 80 Pro Ala Leu Leu Lys Asn Met Arg Trp Lys Pro Leu Ala Leu Gln Pro 310 83 Leu Ile Pro Arg Ser Pro Thr Ser Ser Val Ala Thr Pro Ser Ser Thr 325 330 86 Ile Ser Thr Pro Thr Lys Arg Asp Ser Ser Ala Leu Gln Asp Leu Tyr 340 345 89 Ile Pro Pro Pro Pro Ala Glu Pro Tyr Ile Pro Arg Asp Glu Lys Gly 360 92 Asn Leu Pro Cys Glu Asp Leu Arg Gly His Met Val Gly Lys Pro Val 375 95 His Lys Gly Ser Glu Ser Pro Asn Ser Phe Leu Asp Gln Glu Tyr Arg 390 395 98 Lys Arg Phe Asn Ile Val Glu Glu Asp Thr Val Leu Tyr Cys Tyr Glu 405 410 101 Tyr Glu Lys Gly Arg Ser Ser Ser Gln Gly Arg Arg Glu Ser Thr Pro 420 425 104 Thr Tyr Gly Lys Leu Arg Pro Ile Ser Met Pro Val Glu Tyr Asn Trp 435 440 107 Val Gly Asp Tyr Glu Asp Pro Asn Lys Met Lys Arg Asp Ser Arg Arg 455 110 Glu Asn Ser Leu Leu Arg Tyr Met Ser Asn Glu Lys Ile Ala Gln Glu 470 475 113 Glu Tyr Met Phe Gln Arg Asn Ser Lys Lys Asp Thr Gly Lys Lys Ser 485 490 116 Lys Lys Gly Asp Lys Ser Asn Ser Pro Thr His Tyr Ser Leu Leu 500 505 119 Pro Ser Leu Gln Met Asp Ala Leu Arg Gln Asp Ile Met Gly Thr Pro 520 122 Val Pro Glu Thr Thr Leu Tyr His Thr Phe Gln Gln Ser Ser Leu Gln 535 540 125 His Lys Ser Lys Lys Lys Asn Lys Gly Pro Ile Ala Gly Lys Ser Lys 550 128 Arg Arg Ile Ser Cys Lys Asp Leu Gly Arg Gly Asp Cys Glu Gly Trp 565 570 131 Leu Trp Lys Lys Lys Asp Ala Lys Ser Tyr Phe Ser Gln Lys Trp Lys 580 585 134 Lys Tyr Trp Phe Val Leu Lys Asp Ala Ser Leu Tyr Trp Tyr Ile Asn 595 600 137 Glu Glu Asp Glu Lys Ala Glu Gly Phe Ile Ser Leu Pro Glu Phe Lys 615 140 Ile Asp Arg Ala Ser Glu Cys Arg Lys Lys Tyr Ala Phe Lys Ala Cys

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Output Set: N:\CRF4\03132005\J508343.raw

141	625					630					635					640
		Pro	Lys	Ile	Lys	Ser	Phe	Tyr	Phe	Ala	Ala	Glu	His	Leu	Asp	Asp
144			-		645			•		650					655	_
146	Met	Asn	Arg	Trp	Leu	Asn	Arg	Ile	Asn	Met	Leu	Thr	Ala	Gly	Tyr	Ala
147			_	660			_		665					670		
149	Glu	Arg	Glu	Arg	Ile	Lys	Gln	Glu	Gln	Asp	Tyr	Trp	Ser	Glu	Ser	Asp
150			675	_				680					685			
152	Lys	Glu	Glu	Ala	Asp	Thr	Pro	Ser	Thr	Pro	Lys	Gln	Asp	Ser	Pro	Pro
153		690					695					700				
						Tyr	Pro	Arg	Pro	Pro	Ser	Met	Ser	Cys	Ala	Ser
	705					710					715					720
158	Pro	Tyr	Val	Glu	Ala	Lys	His	Ser	Arg	Leu	Ser	Ser	Thr	Glu	Thr	Ser
159					725					730					735	
161	Gln	Ser	Gln	Ser	Ser	His	Glu	Glu	Phe	Arg	Gln	Glu	Val	Thr	Gly	Ser
162				740					745					750		
164	Ser	Ala	Val	Ser	Pro	Ile	Arg	Lys	Thr	Ala	Ser	Gln	Arg	Arg	Ser	\mathtt{Trp}
165			755					760					765			
	Gln	_	Leu	Ile	Glu	Thr	Pro	Leu	Thr	Ser	Ser	_	Leu	His	Tyr	Leu
168		770					775					780				
		Thr	Leu	Pro	Leu		Asp	Ser	Val	Phe		Asp	Ser	Ala	Ala	
	785				_	790		_		_	795			_	_	800
	Ser	Pro	Glu	His	_	Arg	Gln	Ser	Thr		Pro	Thr	Gln	Lys	_	His
174	_	~-7	_		805	~7	_	_	_	810		~7	_	~7	815	
	ьeu	GIN	Asp		ıyr	GIY	Pro	Tyr		ьeu	Ala	GIU	ser		Arg	Met
177	~1 ~	17 7	T	820	~1	7	a1	~1	825	D	7	C	Dha	830	T	D
180	GIII	vai	835	ASII	GLY	ASII	GIY	840	пув	PLO	Arg	ser	845	1111	Leu	Pro.
	7/200	λαη		Gl ₃₇	Dhe	Λen	His		Cvc	Len	λcn	בות		TeV	Sor	בות
183	ALG	850	SET	Gry	FIIC	VOII	855	Cys	Cys	пеп	VOII	860	FIO	vaı	Ser	AIA
	Cve		Pro	Gln	Δen	Δen	Val	Gln	Pro	Pro	Glu		Glu	Glu	Glu	Glu
	865	11010	110	0111	1101	870	• • •	0111	110	110	875	• • • •	014	014	014	880
		Glu	Glu	Glu	Glu		Gly	Gl 11	Ala	Ala		Glu	Asn	Ile	Glv	
189					885		1			890	2				895	
		Ser	Glu	Ser		Glu	Glu	Lys	Leu		Asp	Ser	Leu	Gln		Leu
192	-			900	_			•	905	•	•			910	•	
194	Tyr	Arg	Ala	Leu	Glu	Gln	Ala	Ser	Leu	Ser	Pro	Leu	Gly	Glu	His	Arg
195	-	•	915					920					925			
197	Ile	Ser	Thr	Lys	Met	Glu	Tyr	Lys	Leu	Ser	Phe	Ile	Lys	Arg	Cys	Asn
198		930		-			935	-				940	_	_	_	
200	Asp	Pro	Val	Met	Asn	Glu	Lys	Leu	His	Arg	Leu	Arg	Ile	Leu	Lys	Ser
201	945					950					955	_				960
203	Thr	Leu	Lys	Ala	Arg	Glu	Gly	Glu	Val	Ala	Ile	Ile	Asp	Lys	Val	Leu
204					965					970					975	
206	Asp	Asn	Pro	Asp	Leu	Thr	Ser	Lys	Glu	Phe	${\tt Gln}$	${\tt Gln}$	Trp	Lys	${\tt Gln}$	Met
207				980					985					990		
209	Tyr	Leu	Asp	Leu	Phe	Leu	Asp	Ile	Cys	Gln	Asn	Thr	Thr	Ser	Asn	Asp
210			995				:	1000				:	1005			
212	Pro	Leu	Ser	Ile	Ser	Ser	Glu	Val	Asp	Val	Ile	Thr	Ser	Ser	Leu	Ala
213	-	1010				-	1015				:	1020				

Input Set : A:\US10508343-seq list.txt
Output Set: N:\CRF4\03132005\J508343.raw

215 His Thr His Ser Tyr Ile Glu Thr His Val 216 1025 1030 219 <210> SEQ ID NO: 2 220 <211> LENGTH: 948 221 <212> TYPE: PRT 222 <213> ORGANISM: Homo sapiens 224 <400> SEQUENCE: 2 225 Phe Ile Gly Arg Glu Ser Glu Gln Ile Asp Asn Ala Met Ile Asn Ala 5 228 Cys Ile Asp Ser Glu Gln Glu Asn Cys Glu Phe His Met Ala Asn Met -229 - - - 20 _ _ _ _ 25 231 Ala Gly Ile Asn Pro Arg Thr Glu Ile Asn Leu Glu Asn Gly Thr His 35 40 234 Ala Ala Met Ala Leu Ile Met Glu Pro Val Ser Lys Trp Ser Pro Ser 235 50 55 237 Gln Val Val Asp Trp Met Lys Gly Leu Asp Asp Cys Leu Gln Gln Tyr 240 Ile Lys Asn Phe Glu Arg Glu Lys Ile Ser Gly Asp Gln Leu Leu Arg 85 90 243 Ile Thr His Gln Glu Leu Glu Asp Leu Gly Val Ser Arg Ile Gly His 100 105 246 Gln Glu Leu Ile Leu Glu Ala Val Asp Leu Leu Cys Ala Leu Asn Tyr 115 120 249 Gly Leu Glu Thr Glu Asn Leu Lys Thr Leu Ser His Lys Leu Asn Ala 130 135 252 Ser Ala Lys Asn Leu Gln Asn Phe Ile Thr Gly Arg Arg Arg Ser Gly 155 255 His Tyr Asp Gly Arg Thr Ser Arg Lys Leu Pro Asn Asp Phe Leu Thr 165 170 258 Ser Val Val Asp Leu Ile Gly Ala Ala Lys Ser Leu Leu Ala Trp Leu 180 185 261 Asp Arg Ser Pro Phe Ala Ala Val Thr Asp Tyr Ser Val Thr Arg Asn 195 200 264 Asn Val Ile Gln Leu Cys Leu Glu Leu Thr Thr Ile Val Gln Gln Asp 215 267 Cys Thr Val Tyr Glu Thr Glu Asn Lys Ile Leu His Val Cys Lys Thr 235 268 225 230 270 Leu Ser Gly Val Cys Asp His Ile Ile Ser Leu Ser Ser Asp Pro Leu 245 273 Val Ser Gln Ser Ala His Leu Glu Val Ile Gln Leu Ala Asn Ile Lys 274 260 265 276 Pro Ser Glu Gly Leu Gly Met Tyr Ile Lys Ser Thr Tyr Asp Gly Leu 277 275 280 279 His Val Ile Thr Gly Thr Thr Glu Asn Ser Pro Ala Asp Arg Cys Lys 295 282 Lys Ile His Ala Gly Asp Glu Val Ile Gln Val Asn His Gln Thr Val 310 315 285 Val Gly Trp Gln Leu Lys Asn Leu Val Asn Ala Leu Arg Glu Asp Pro 330

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288 289	Ser	Gly	Val	Ile 340	Leu	Thr	Leu	Lys	Lys	Arg	Pro	Gln	Ser	Met 350	Leu	Thr
	Ser	Ala	Pro	-	Leu	Leu	Lvs	Asn		Ara	Trp	Lvs	Pro		Ala	Leu
292			355				4	360		J	•	4	365			
294	Gln	Pro	Leu	Ile	Pro	Arg	Ser	Pro	Thr	Ser	Ser	Val	Ala	Thr	Pro	Ser
295		370					375					380				
297	Ser	Thr	Ile	Ser	Thr	Pro	Thr	Lys	Arg	Asp	Ser	Ser	Ala	Leu	Gln	Asp
	385					390	-				395					400
	Leu	Tyr	Ile	Pro		Pro	Pro	Ala	Glu		Tyr	Ile	Pro	Arg	Asp	Glu
301	_	~3	_	_	405	_	~1	_	_	410	~1	•			415	_
	Lys	GIY	Asn		Pro	Cys	GIU	Asp		Arg	GIĀ	His	Met		Gly	ьys
304	Dwo	37.0.7	111.0	420	~ 1	C ~ ~	C1	Com	425	7 ~~	Com	Dha	T 0	430	Gln	C1
307	PIO	vai	435	пуъ	GIY	ser	Giu	440	PIO	ASII	ser	Pne	445	Asp	GIII	GIU
	Tur	Ara		Δra	Phe	Δsn	Tle		Glu	Glu	Δsn	Thr		T.e.11	Tyr	Cvs
310	-1-	450	_,	9			455	• • • •	014	O_u	TIOP	460	•~-		-1-	C _I D
	Tyr	Glu	Tyr	Glu	Lys	Gly		Ser	Ser	Ser	Gln	Gly	Arg	Arg	Glu	Ser
	465		•		•	470					475	-				480
315	Thr	Pro	Thr	Tyr	Gly	Lys	Leu	Arg	Pro	Ile	Ser	Met	Pro	Val	Glu	Tyr
316					485					490					495	
318	Asn	Trp	Val	Gly	Asp	Tyr	Glu	Asp	Pro	Asn	Lys	Met	Lys	Arg	Asp	Ser
319			_	500					505					510		_
	Arg	Arg		Asn	Ser	Leu	Leu	_	Tyr	Met	Ser	Asn		Lys	Ile	Ala
322	a1	~1	515	m	3 4 -	Db -	~1	520	3	a	T	T	525	ml	a 1	T
324	GIII	530	GIU	TYL	Met	Pne	535	Arg	ASII	ser	гуѕ	ьуs 540	Asp	THE	Gly	ьуѕ
	T.vg		Tare	Lve	Lve	Glv		T.ve	Ser	Δen	Ser		Thr	Hic	Tyr	Ser
	545	DCI	Lys	Lys	Lys	550	nop	цу	DCI	ASII	555	110	1111	1110	- 7 -	560
		Leu	Pro	Ser	Leu		Met	Asp	Ala	Leu		Gln	Asp	Ile	Met	
331					565			-		570			-		575	•
333	Thr	Pro	Val	Pro	Glu	Thr	Thr	Leu	Tyr	His	Thr	Phe	Gln	Gln	Ser	Ser
334				580					585					590		
	Leu	Gln		Lys	Ser	Lys	Lys	_	Asn	Lys	Gly	Pro		Ala	Gly	Lys
337	_	_	595	_		_	_	600	_	_		_	605	_	_	
	Ser		Arg	Arg	He	Ser		Lys	Asp	Leu	GLY		GIÀ	Asp	Cys	Glu
340	C1	610	T 011	Tres	Trea	Tura	615	7 cm	ת דת	T 110	Co*	620	Dho	C0*	C15	Taro
	625	пр	ьеи	пр	гуѕ	630	тур	Asp	на	гур	635	ıyı	Pne	ser	Gln	640
		Lvs	Lvs	Tvr	Trn		Val	T.e.ii	Lvs	Asp		Ser	Len	Tvr	Trp	
346		_, _	_,,	-1-	645		٠		_,,	650				- , -	655	-1-
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349				660	-		-		665	-				670		
351	Phe	Lys	Ile	Asp	Arg	Ala	Ser	Glu	Cys	Arg	Lys	Lys	Tyr	Ala	Phe	Lys
352			675					680					685			
	Ala		His	Pro	Lys	Ile		Ser	Phe	Tyr	Phe		Ala	Glu	His	Leu
355	_	690		_	_	_	695	_	_		_	700	_			
	_	Asp	Met	Asn	Arg	_	Leu	Asn	Arg	Ile		Met	Leu	Thr	Ala	
	705	73 -	~ 3	7	~ 1	710	-1 .	T	01 -	~ 3	715	7	m	m	0	720
360	ıyr	ALA	GIU	arg	GIU	arg	тте	гуѕ	GIN	GIU	GIN	Asp	ıyr	Trp	Ser	GIU

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/508,343

DATE: 03/13/2005 TIME: 11:58:41

Input Set : A:\US10508343-seq list.txt
Output Set: N:\CRF4\03132005\J508343.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date